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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

NCR Docket No. 9437

MMB Docket No. 1001-0729

Application of: Robert L. SNYDER

Group Art Unit: 3627

Serial No. 10/033,121

Examiner: Andrew J. Fischer

Filed: October 23, 2001

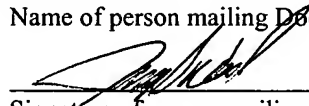
For: **SELF-CHECKOUT SYSTEM HAVING COMPONENT VIDEO  
CAMERA FOR PRODUCE PURCHASE MONITORING**

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November 2, 2005

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**APPEAL BRIEF**

Sir:

This is an appeal under 37 CFR § 1.191 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the final rejection of the claims 1-21 of the above-identified patent application. These claims were indicated as rejected in an Office Action dated June 2, 2005. The \$500.00 fee required under 37

CFR § 41.20(b)(2) is included herewith. Also, please provide any extensions of time that

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may be necessary and charge any fees that may be due to Account No. 13-0014, but not to include any payment of issue fees.

**(1) REAL PARTY IN INTEREST**

NCR Corporation of Dayton, Ohio is the assignee of this patent application, and the real party in interest.

**(2) RELATED APPEALS AND INTERFERENCES**

There are no appeals or interferences related to this patent application (serial no. 10/033,121).

**(3) STATUS OF CLAIMS**

Claims 1-21 are pending in the application.

Claims 1-21 are rejected.

Claims 1-21 are being appealed, and are shown in the Appendix attached to this Appeal Brief.

**(4) STATUS OF AMENDMENTS**

Appellant has filed no amendments after receipt of the June 2, 2005, Office Action (the "Office Action").

**(5) SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention relates to a self-service checkout system monitoring system and method. (See, e.g. Appellant's specification at page 1, lines 4-6). In accordance with one embodiment, a self service checkout system 10 includes a self-checkout terminal (SCOT) 12. (See, e.g. Appellant's specification at page 8, lines 13-14 and FIG. 1). The SCOT may include a scanner 30 and a product scale 32. (See, e.g. Appellant's specification at page 11, lines 15-16 and FIG. 2). A camera 70 is also provided at the SCOT 12. (See, e.g. Appellant's specification at page 17, lines 12-13 and FIG. 2).

In operation, produce is placed on the scale 32 for weighing. (See, e.g. Appellant's specification at page 25, lines 1-2). Once a stable weight for the produce is registered on the scale 32, the produce weight is read. (See, e.g. Appellant's specification at page 25, lines 2-3 and FIG. 6, steps 124-126). Next, an image of the produce is obtained. (See, e.g. Appellant's specification at page 25, lines 4-5 and FIG. 6, step 128). The above described steps are performed under the direction of product scale software 92. (See, e.g. Appellant's specification at page 22, line 19 through page 23 line 7). As described in the specification, performance of the above described steps is advantageous since a customer is typically not in the line of sight of the camera if the weight of the produce has stabilized. (See, e.g. Appellant's specification at page 23, lines 2-7).

Accordingly, in a system or method in accordance with the present invention a digital picture of an item is acquired as a function of obtaining the weight of the item. In other words, a specific event in the step of weighing an item *causes* the image acquisition step to be performed.

**(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,426,282 to Humble (hereinafter “Humble”) in view of either U.S. Patent No. 4,914,746 to Nishi et al. (hereinafter “Nishi”) or U.S. Patent No. 6,278,492 B1 to Nakamura (hereinafter “Nakamura”).

**(7) ARGUMENT**

**Claims 1-6, 8-13 and 15-10 are Not Obvious  
Over Humble in View of Nishi or Nakamura**

*Discussion re: Patentability of Claim 1*

1. Claim 1

Claim 1 recites the following:

A method of operating a self-service checkout terminal comprising the steps of:  
initiating a checkout transaction at the self-service checkout terminal;  
obtaining weight of a produce item via a scale of the self-service checkout terminal; and  
acquiring a digital picture of the produce item via a component video camera of the self-service checkout terminal wherein the step of acquiring a digital picture is triggered by the step of obtaining the weight of the produce item.

Because the step of “acquiring” is “triggered” by the step of “obtaining,” in a system according to claim 1, the acquisition of a digital picture is a function of the step of obtaining the weight of a produce item. In other words, a specific event in the step of weighing an item *causes* the image acquisition step to be performed.

2. The Proposed Modification Does Not Arrive at the Present Invention

The Examiner rejected claim 1 based upon the proposition that Humble discloses all of the limitations of claim 1 with the exception of the use of a digital image. (Office Action at page 3). The Examiner relied alternatively on Nishi and Nakamura for teaching the use of a digital camera. (Office Action at page 3). Humble, even as modified, does not teach or suggest a system wherein the step of weighing causes the step of acquiring a digital picture to be performed. Accordingly, the proposed modification does not arrive at the invention of claim 1.

a. The Examiner Has Admitted the Shortcomings of the Prior Art

As an initial matter, the Examiner apparently agrees with the Applicant that the proposed modification fails to arrive at the invention of claim 1. The Examiner has stated that the digital picture acquired in the modified system of Humble is not acquired by “a ‘direct consequence’ of the weighing.” This admission is “explained” to mean that “ ‘but for’ the stopping and weighing, the image may not be acquired.”

The use of the “may” obviates the meaning of the term “but for” rendering the Examiner’s position somewhat confusing. The Examiner appears to admit, however, that there is no causal relationship between the weighing and imaging in the system of Humble. Claim 1 recites that the acquisition of an image is “triggered” by the step of obtaining the weight of an item. A system that does not have a causal relationship between steps is not the same as a system that requires a causal relationship between steps.

Accordingly, the Examiner has admitted that the proposed modification fails to arrive at a system that acquires an image in the manner recited by the claim. Therefore,

under MPEP § 2143.03, a prima facie case of obviousness has not been made and Board is respectfully requested to overturn the rejection of claim 1 under 35 U.S.C. 103(a).

b. The Term “Comprising” Has Been Misconstrued

While agreeing with the Applicant that the recited elements do not appear in the prior art, the Examiner appears to argue that the use of the term “comprising” in the preamble renders the requirement for identifying each limitation of the claim in the prior art unnecessary. The Applicant respectfully disagrees.

Specifically, the Examiner has stated that “Applicant also argues that the Humble camera is not triggered by weight. Again, the Examiner respectfully disagrees. Humble directly discloses that the image and weight are captured when the transport is stopped.” (Office Action at pages 6-7). This statement is followed by the quotation set forth above wherein the Examiner *agrees* with the Applicant that Humble does *not* disclose a causal relationship between weighing and imaging. The only discussion between the two diametrically opposed statements, is a reference to the use of the term “comprising” in the preamble and MPEP §2111.03. (Office Action at page 7). Accordingly, relying upon MPEP §2111.03, the Examiner apparently argues that because the term “comprising” in a preamble is an open term, the use of the word “comprising” in the preamble of a claim somehow obviates the need for the recited steps to be identified in the prior art.

MPEP §2111.03 states the unremarkable proposition that the word “comprising” when used in a preamble “does not exclude additional, unrecited elements or method steps.” Thus, additional unrecited steps may be included within the scope of the claim. There is nothing in this statement that can reasonably be construed to mean that the use

of the word “comprising” in a preamble of a claim allows an element recited in the claim to be ignored when performing a patentability examination.

MPEP § 2143 requires the prior art reference (or references when combined) to teach or suggest all the claim limitations. MPEP § 2111.03 does not overturn MPEP § 2143. Therefore, because the Examiner has admitted that the prior art fails to teach or suggest a system that acquires an image in the manner recited by the claim, under MPEP § 2143.03, a prima facie case of obviousness has not been made and Board is respectfully requested to overturn the rejection of claim 1 under 35 U.S.C. 103(a).

c. The Examiner Has Correctly Admitted that Triggering is Not Taught

The Examiner’s statements as to why the system of Humble teaches or suggests the above discussed element is confusing. Nonetheless, the Applicant submits that the Examiner was correct to the extent that he admitted that Humble neither teaches nor suggests a system wherein acquisition of a picture is “triggered” by a step of weighing.

Specifically, Humble discloses a sensor 42 that detects a product in the security zone 38 so as to stop the conveyor belt. (Humble at column 3, lines 60-63). Humble also indicates that the item is then weighed. (Humble at column 3, lines 63-66). However, there is no indication as to what triggers the weighing of the item. Humble further discloses that the acquisition of a video image is “triggered whenever a product is sensed without a UPC barcode label”. (Humble at column 4, lines 8-11). The only discussion that the Applicant is aware of in Humble that relates to sensing the presence or absence of a bar code is at column 7, lines 18-29. There, it states that a pattern recognition system can be used to “discriminate product identity codes, when available.” (Humble at

column 7, lines 25-27). Thus, there does not appear to be any causative relationship between the weighing of the object and the acquisition of a picture of the object.

Therefore, while Humble apparently discloses obtaining a picture of produce based upon the lack of detecting a bar code, Humble cannot fairly be said to disclose a method wherein a step of obtaining the weight of an item triggers the acquisition of a picture of the item. Thus, Humble does not disclose the recited acquiring step.

d. Conclusion

For any or all of the above reasons, it is respectfully submitted that a *prima facie* case of obviousness has not been made and the Board of Appeals is respectfully requested to reverse the rejection of claim 1 under 35 U.S.C. § 103(a).

*Discussion Regarding Claims 2-6, 8-13 and 15-19*

Claims 2-6, 8-13 and 15-19 have been rejected as obvious based upon the same prior art and the same allegations discussed above with respect to claim 1. (Office Action at page 3). Claims 8 and 15 are independent claims which, for the purpose of this Appeal, include limitations similar to those discussed above with respect to claim 1. Claims 2-6, 9-13 and 16-19 depend, either directly or by way of an intermediate claim, from one of claims 1, 8 or 15 and include all of the limitations of the base claim as well as other limitations. Therefore, for at least the same reasons set forth above with respect to the patentability of claim 1 over the proposed combination of Humble with either Nishi or Nakamura, claims 2-6, 8-13 and 15-19 are patentable and the Board of Appeals is respectfully requested to reverse the rejections of claims 2-6, 8-13 and 15-19.



**Claims 7, 14, 20 and 21 are Not Obvious  
Over Humble in View of Nishi or Nakamura**

*Discussion Regarding Claim 7*

1. The Discussion of Claim 1 Applies

As an initial matter, claim 7 has been rejected as obvious over Humble in View of Nishi or Nakamura for the same reason set forth above with respect to claim 1. (Office Action at page 3). Claim 7 depends from claim 1 and incorporates all of the limitations of claim 1. Therefore, for at least the same reasons set forth above with respect to the patentability of claim 1 over the proposed combination of Humble in View of Nishi or Nakamura, claim 7 is patentable and the Board of Appeals is respectfully requested to reverse the rejection of claim 7.

2. Prima Facie Obviousness Has Not Been Alleged

Additionally, the Examiner has failed to identify any teaching or suggestion in the prior art of the limitations added by claim 7.

Specifically, claim 7 adds the limitation that “the step of obtaining weight of the produce item via a scale of the self-service checkout terminal includes the step of waiting for a stable weight period of the produce item on the scale.” The Examiner has failed to provide any guidance of where this limitation is taught or suggested in the prior art. Moreover, the Applicant has not discovered any such teaching or suggestion. In fact, such a teaching or suggestion would appear to contradict the teaching of Humble that the image and the weight “may be recorded ‘on the fly’.” (Humble at column 4, lines 3-5).

MPEP § 2143 requires the prior art reference (or references when combined) to teach or suggest all the claim limitations. The Examiner has failed to identify the limitations of claim 7 in the prior art. Therefore, the Examiner has failed to present a *prima facie* case of obviousness and the Board of Appeals is respectfully requested to reverse the rejection of claim 7 under 35 U.S.C. § 103(a).

3. Conclusion

For any or all of the above reasons, it is respectfully submitted that a *prima facie* case of obviousness has not been made and the Board of Appeals is respectfully requested to reverse the rejection of claim 7 under 35 U.S.C. § 103(a).

*Discussion Regarding Claims 14, 20 and 21*

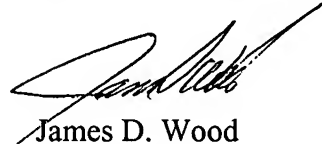
Claims 14, 20 and 21 have been rejected as obvious based upon the same prior art and the same allegations discussed above with respect to claim 7. (Office Action at page 3). Claim 21 is an independent claim which, for the purpose of this Appeal, include limitations similar to those discussed above with respect to claim 1 and with respect to claim 7. Claims 14 and 20 depend directly from claims 8 and 15, respectively and include all of the limitations of the base claim as well as limitations similar to the limitation discussed above with respect to claim 7. Therefore, for at least the same reasons set forth above with respect to the patentability of claim 7 over the proposed combination of Humble with either Nishi or Nakamura, claims 14, 20 and 21 are patentable and the Board of Appeals is respectfully requested to reverse the rejections of claims 14, 20 and 21.

**(8) CONCLUSION**

Claims 1-21 are not obvious in view of a combination of Humble as modified by either Nishi or Nakamura. Accordingly, the Board of Appeals is respectfully requested to reverse the rejections of claims 1-21.

Respectfully submitted,

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**(9) CLAIMS APPENDIX**

Claim 1. A method of operating a self-service checkout terminal comprising the steps of:

initiating a checkout transaction at the self-service checkout terminal;

obtaining weight of a produce item via a scale of the self-service checkout terminal; and

acquiring a digital picture of the produce item via a component video camera of the self-service checkout terminal wherein the step of acquiring a digital picture is triggered by the step of obtaining the weight of the produce item.

Claim 2. The method of claim 1, further comprising the steps of:

forwarding the acquired digital picture of the produce item to a monitoring station; and

displaying the acquired digital picture of the produce item at the monitoring station.

Claim 3. The method of claim 2, further comprising the step of:

permitting one of approval and disapproval of the checkout transaction by the monitoring station based on the obtained weight and the acquired digital picture of the produce item.

Claim 4. The method of claim 2, further comprising the steps of:

storing the acquired digital picture of the produce item; and

associating the stored digital picture of the produce item with the checkout transaction.

Claim 5. The method of claim 1, wherein the step of acquiring a digital picture of the produce item via a component video camera includes acquiring a digital picture of the produce item via a component video camera comprising a web camera.

Claim 6. The method of claim 1, wherein the step of acquiring a digital picture of the produce item via a component video camera includes acquiring a high-resolution digital picture of the produce item via a web camera.

Claim 7. The method of claim 1, wherein the step of obtaining weight of the produce item via a scale of the self-service checkout terminal includes the step of waiting for a stable weight period of the produce item on the scale.

Claim 8. A self-service checkout terminal comprising:  
a processing unit;  
a component video camera in communication with said processing unit;  
a produce scale in communication with said processing unit; and  
memory in communication with said processing unit and containing program instructions which, when executed by said processing unit, causes said processing unit to  
(i) initiate a checkout transaction at the self-service checkout terminal, (ii) obtain weight of a produce item via a produce scale of the self-service checkout terminal, and (iii)

acquire a digital picture of the produce item after initiating the program instructions for obtaining the weight of the produce item.

Claim 9. The self-service checkout terminal of claim 8, wherein said component video camera comprises a web camera.

Claim 10. The self-service checkout terminal of claim 9, wherein said web camera is operative to obtain a high-resolution digital picture of said produce item.

Claim 11. The self-service checkout terminal of claim 8, wherein said memory has further program instructions which, when executed by said processing unit causes said processing unit to (iv) forward the acquired digital picture of the produce item to a monitoring station, and (v) display the acquired digital picture of the produce item at the monitoring station.

Claim 12. The self-service checkout terminal of claim 11, wherein said memory has further program instructions which, when executed by said processing unit causes said processing unit to (vi) permit one of approval and disapproval of the checkout transaction by the monitoring station based on the obtained weight and the acquired digital picture of the produce item.

Claim 13. The self-service checkout terminal of claim 8, wherein said memory has further program instructions which, when executed by said processing unit causes said

processing unit to (iv) store the acquired digital picture of the produce item, and (v) associate the stored digital picture of the produce item with the checkout transaction.

Claim 14. The self-service checkout terminal of claim 8, wherein obtaining weight of the produce item via said scale of the self-service checkout terminal includes waiting for a stable weight period of the produce item on said scale.

Claim 15. A self-service checkout system comprising:

- a self-service checkout terminal;

- a monitoring station; and

- a network providing communication between said self-service checkout terminal and said monitoring station;

- said self-service checkout terminal comprising:

  - a first processing unit;

  - a component video camera in communication with said processing unit;

  - a produce scale in communication with said processing unit; and

  - first memory in communication with said processing unit and containing program instructions which, when executed by said processing unit, causes said processing unit to (i) initiate a checkout transaction at the self-service checkout terminal, (ii) obtain weight of a produce item via a produce scale of the self-service checkout terminal, (iii) acquire a digital picture of the produce item based upon the program instructions to obtain the weight of the produce item, and (iv) transmit the acquired digital picture of the produce item to said monitoring station via said network;

said monitoring station comprising:

a second processing unit;

a display in communication with said processing unit; and

second memory in communication with said processing unit and

containing program instructions which, when executed by said processing unit, causes said processing unit to (i) receive the digital picture of the produce item from the self-service checkout terminal via the network; and (ii) display the digital picture of the produce item on the display.

Claim 16. The self-service checkout system of claim 15, wherein said second memory has further program instructions which, when executed by said second processing unit causes said second processing unit to (iii) permit one of approval and disapproval of the checkout transaction by the monitoring station based on the obtained weight and the acquired digital picture of the produce item.

Claim 17. The self-service checkout system of claim 15, wherein said second memory has further program instructions which, when executed by said second processing unit causes said second processing unit to (iii) store the acquired digital picture of the produce item, and (iv) associate the stored digital picture of the produce item with the checkout transaction.

Claim 18. The self-service checkout system of claim 15, wherein said component video camera comprises a web camera.

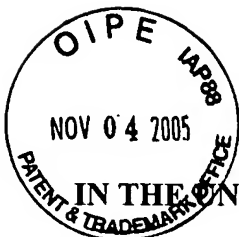


Claim 19. The self-service checkout system of claim 18, wherein said web camera is operative to obtain a high-resolution digital picture of the produce item.

Claim 20. The self-service checkout system of claim 15, wherein obtaining weight of the produce item via said scale of the self-service checkout terminal includes waiting for a stable weight period of the produce item on said scale.

Claim 21. A method of operating a self-service checkout terminal comprising the steps of:

- initiating a checkout transaction at the self-service checkout terminal;
- placing a produce item on a scale;
- generating via the scale a stable indication of the weight of the produce item;
- obtaining the weight of the produce item via the scale; and
- obtaining a picture the produce item via a camera at the self-service checkout terminal in response to the generation of a stable indication of the weight of the produce item.



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November 2, 2005

Date of Signature

Re: Application of: Snyder  
Serial No.: 10/033,121  
Filing Date: October 23, 2001  
For: Self-Checkout System Having Component Video  
Camera for Produce Purchase Monitoring  
Group Art Unit: 3627  
Examiner: Andrew J. Fischer  
MMB Docket No. 1001-0729  
NCR Reference: 9437

**TRANSMITTAL OF APPEAL BRIEF**

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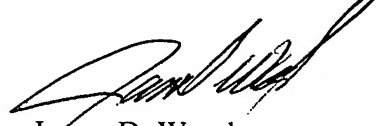
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2. A Check in the amount of \$500.00; and
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Page 2

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Respectfully Submitted,

MAGINOT, MOORE & BECK

A handwritten signature in black ink, appearing to read "James D. Wood", is written over the printed name.

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November 2, 2005

Enclosures